Pit Stops Fact Sheet

Body Repair and Painting

Potential Environmental Impacts

Auto body repair and painting have potential air and water quality impacts. Styrene is the main reactive component of body filler (often referred to as Bondo™) prior to being mixed with hardener. Styrene is toxic to aquatic organisms, is listed as state and federal hazardous air pollutant, and is a possible carcinogen. The dust resulting from the sanding of body filler is not toxic, but should be swept or vacuumed up.

Most paints contain volatile organic compounds (VOCs) that evaporate quickly and are ignitable. Many paints are also toxic. When released to the atmosphere, VOCs combine with combustion emissions of nitrogen oxides (NO_x) to form ground level ozone, which damages lungs and degrades many materials.

Vent design could cause odors to reach neighboring property

Legal Requirements

- Automotive refinishing operations must be performed in accordance with certain requirements that are summarized below. If any of these requirements are not met, the facility must obtain an individual permit from the CT DEP. [RCSA Section 22a-174-3b]
  1. You must maintain records for the past 5 years demonstrating that you have not used more than 2,000 gallons of VOC containing paints and thinner for the premises in any calendar year. Purchase records can be used to demonstrate compliance.
  2. Paints and coatings must be applied by one of the following means:
     - high volume low pressure spray equipment (HVLP guns),
     - electrostatic application equipment, or
     - any other application method that has a manufacturer's guaranteed transfer efficiency of at least 65%.
  3. Spray operations must take place in an enclosed area. If a spray booth is used, it must have particulate control equipment that is operated and maintained in good working condition.

4. Application equipment must be cleaned using one of the following means;
   - in a device that remains closed at all times when not in use,
   - in a system that discharges unatomized cleaning solvent into a waste container that remains closed when not in use,
   - in a vat that allows for disassembly and cleaning of application equipment and that is kept closed when not in use, or
   - in a system that atomizes spray into a paint waste container that is fitted with device designed to capture atomized solvent emissions.
5. You must keep records of the amount of paint and solvent used, in gallons, for each month and each 12-month rolling aggregate. These records must be kept for a minimum of 5 years and be available for inspection by the CT-DEP.

- **VOC Content:** The U.S. EPA has a rule that limits the VOC content of all vehicle-refinishing coatings. Although these lower VOC paints are more expensive to buy, they provide better coverage and this can translate into significant overall savings. The manufacturer's guidelines for proper mixing and application techniques should be followed to avoid inferior finishes that exceed the VOC standards.
- **Odors:** There are regulations covering emission of odors to the extent that they constitute a nuisance-by being injurious to public health or welfare, or unreasonably interfering with the enjoyment of life or the use of property [RCSA Section 22a-174-23(a)]. Odors from auto refinishing operations can be minimized by properly exhausting the spray booth.
- **Refinishing Wastes:** You must determine if your vehicle refinishing wastes (including leftover paints, unused body filler, spray gun solvents, rags, paint booth filters and paint-related debris) or any materials used to clean a spill, are hazardous [40 CFR 262.11; RCSA Section 22a-449(c)-102(a)(2)(A)]. See Appendix A for more information on hazardous waste determinations and proper storage and disposal requirements.

For more information about air emission requirements, contact CT-DEP's Bureau of Air Management at (860) 424-3027.

Best Management Practices

- ★ Dust, sand, grit or other material from sanding of body filler or grinding of parts should be swept or vacuumed at least once per day and immediately prior to floor washing.
- ★ Train employees to use spray equipment with high transfer efficiency.

Painting with HVLP gun in spray booth

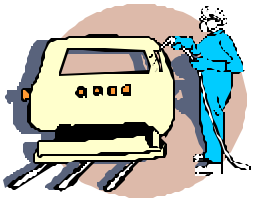
- ★ Limit the amount of leftover paint and decrease solvent use by using a smaller paint spray gun cup.
- ★ Used solvent can be reused for initial rinse-out of spray gun. Reuse solvents and thinners by draining the clean product off the top once solids settle out.
- ★ If your facility utilizes an electrostatic eliminator containing radioactive material, ensure personnel are trained in the proper use of this equipment and that the source of radiation does not become exposed. When they are no longer needed, electrostatic eliminators containing radioactive material must either be returned to the manufacturer or properly disposed of in accordance with the manufacturer's directions.
- ★ Use a commercial car wash if your facility is not equipped with a properly permitted wash bay. See the Shop Wastewater fact sheet for more information.

Pollution Prevention Checklist

- ✓ Is your staff trained in the use of spray equipment with high transfer efficiency such as HVLP spray guns? YES NO N/A

- ✓ Do you reuse solvents and thinners by draining the clean product off the top?

YES NO N/A



Did You Know?

Using higher efficiency spray equipment such as HVLP guns can reduce overspray by 25% to 50%.